William R Young

List of Publications by Year
in descending order

71	4,313	117625	106344
papers	citations	34 h-index	65 g-index

72	72	72	2398
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Homogenization of potential vorticity in planetary gyres. Journal of Fluid Mechanics, 1982, 122, 347.	3.4	384
2	How rapidly is a passive scalar mixed within closed streamlines?. Journal of Fluid Mechanics, 1983, 133, 133-145.	3.4	316
3	Inelastic collapse and clumping in a oneâ€dimensional granular medium. Physics of Fluids A, Fluid Dynamics, 1992, 4, 496-504.	1.6	305
4	Evolution of vortex statistics in two-dimensional turbulence. Physical Review Letters, 1991, 66, 2735-2737.	7.8	248
5	Shear-Flow Dispersion, Internal Waves and Horizontal Mixing in the Ocean. Journal of Physical Oceanography, 1982, 12, 515-527.	1.7	239
6	Reproductive pair correlations and the clustering of organisms. Nature, 2001, 412, 328-331.	27.8	190
7	Propagation of near-inertial oscillations through a geostrophic flow. Journal of Marine Research, 1997, 55, 735-766.	0.3	164
8	Zonostrophic Instability. Journals of the Atmospheric Sciences, 2012, 69, 1633-1656.	1.7	155
9	Kinetics of a oneâ€dimensional granular medium in the quasielastic limit. Physics of Fluids A, Fluid Dynamics, 1993, 5, 34-45.	1.6	143
10	Horizontal convection is non-turbulent. Journal of Fluid Mechanics, 2002, 466, 205-214.	3.4	121
11	Dynamics of interfaces and layers in a stratified turbulent fluid. Journal of Fluid Mechanics, 1998, 355, 329-358.	3.4	116
12	An Exact Thickness-Weighted Average Formulation of the Boussinesq Equations. Journal of Physical Oceanography, 2012, 42, 692-707.	1.7	110
13	Tidal conversion at a very steep ridge. Journal of Fluid Mechanics, 2003, 495, 175-191.	3.4	103
14	Tidal Conversion at a Submarine Ridge. Journal of Physical Oceanography, 2006, 36, 1053-1071.	1.7	94
15	Two-Layer Baroclinic Eddy Heat Fluxes: Zonal Flows and Energy Balance. Journals of the Atmospheric Sciences, 2007, 64, 3214-3231.	1.7	88
16	Scaling Baroclinic Eddy Fluxes: Vortices and Energy Balance. Journal of Physical Oceanography, 2006, 36, 720-738.	1.7	84
17	Extremal energy properties and construction of stable solutions of the Euler equations. Journal of Fluid Mechanics, 1989, 207, 133-152.	3.4	74
18	Blow-up of unsteady two-dimensional Euler and Navier-Stokes solutions having stagnation-point form. Journal of Fluid Mechanics, 1989, 203, 1-22.	3.4	72

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19	Dynamic Enthalpy, Conservative Temperature, and the Seawater Boussinesq Approximation. Journal of Physical Oceanography, 2010, 40, 394-400.	1.7	68
20	Disturbing vortices. Journal of Fluid Mechanics, 2001, 426, 95-133.	3.4	64
21	Rates, pathways, and end states of nonlinear evolution in decaying twoâ€dimensional turbulence: Scaling theory versus selective decay. Physics of Fluids A, Fluid Dynamics, 1992, 4, 1314-1316.	1.6	63
22	Multiple equilibria in two-dimensional thermohaline circulation. Journal of Fluid Mechanics, 1992, 241, 291-309.	3.4	61
23	On the interaction of small-scale oceanic internal waves with near-inertial waves. Journal of Fluid Mechanics, 1986, 166, 341.	3.4	58
24	Shear dispersion and anomalous diffusion by chaotic advection. Journal of Fluid Mechanics, 1994, 280, 149-172.	3.4	58
25	Numerical and Analytical Estimates of M2 Tidal Conversion at Steep Oceanic Ridges. Journal of Physical Oceanography, 2006, 36, 1072-1084.	1.7	56
26	Enhanced dispersion of near-inertial waves in an idealized geostrophic flow. Journal of Marine Research, 1998, 56, 1-40.	0.3	51
27	Stimulated generation: extraction of energy from balanced flow by near-inertial waves. Journal of Fluid Mechanics, 2018, 847, 417-451.	3.4	49
28	A three-component model for the coupled evolution of near-inertial waves, quasi-geostrophic flow and the near-inertial second harmonic. Journal of Fluid Mechanics, 2016, 802, 806-837.	3.4	47
29	Available potential energy and buoyancy variance in horizontal convection. Journal of Fluid Mechanics, 2009, 629, 221-230.	3.4	45
30	Near-inertial parametric subharmonic instability. Journal of Fluid Mechanics, 2008, 607, 25-49.	3.4	44
31	Refraction of swell by surface currents. Journal of Marine Research, 2014, 72, 105-126.	0.3	41
32	Dynamics of vorticity defects in shear. Journal of Fluid Mechanics, 1997, 333, 197-230.	3.4	38
33	Generation of surface waves by shear-flow instability. Journal of Fluid Mechanics, 2014, 739, 276-307.	3.4	37
34	Penetration of Wind-Generated Near-Inertial Waves into a Turbulent Ocean. Journal of Physical Oceanography, 2020, 50, 1699-1716.	1.7	37
35	Available potential vorticity and wave-averaged quasi-geostrophic flow. Journal of Fluid Mechanics, 2015, 785, 401-424.	3.4	36
36	Radiative damping of near-inertial oscillations in the mixed layer. Journal of Marine Research, 1999, 57, 561-584.	0.3	34

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37	A two-dimensional vortex condensate at high Reynolds number. Journal of Fluid Mechanics, 2013, 715, 359-388.	3.4	33
38	Some interactions between small numbers of baroclinic, geostrophic vortices. Geophysical and Astrophysical Fluid Dynamics, 1985, 33, 35-61.	1.2	31
39	Control of Large-Scale Heat Transport by Small-Scale Mixing. Journal of Physical Oceanography, 2006, 36, 1877-1894.	1.7	30
40	Reynolds Stress and Eddy Diffusivity of Î²-Plane Shear Flows. Journals of the Atmospheric Sciences, 2014, 71, 2169-2185.	1.7	27
41	Stratified tidal flow over a tall ridge above and below the turning latitude. Journal of Fluid Mechanics, 2016, 793, 933-957.	3.4	18
42	Radiation of internal waves from groups of surface gravity waves. Journal of Fluid Mechanics, 2017, 829, 280-303.	3.4	18
43	Moist convection drives an upscale energy transfer at Jovian high latitudes. Nature Physics, 2022, 18, 357-361.	16.7	18
44	Directional diffusion of surface gravity wave action by ocean macroturbulence. Journal of Fluid Mechanics, 2020, 890, .	3.4	17
45	The advectionâ€“condensation model and waterâ€vapour probability density functions. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1561-1572.	2.7	16
46	Diffusion-limited scalar cascades. Journal of Fluid Mechanics, 2003, 482, 91-100.	3.4	14
47	Bounds on dissipation in stress-driven flow. Journal of Fluid Mechanics, 2004, 510, 333-352.	3.4	14
48	A bound on scalar variance for the advectionâ€“diffusion equation. Journal of Fluid Mechanics, 2006, 552, 289.	3.4	14
49	Stressed horizontal convection. Journal of Fluid Mechanics, 2012, 692, 317-331.	3.4	14
50	An asymptotic model for the propagation of oceanic internal tides through quasi-geostrophic flow. Journal of Fluid Mechanics, 2017, 828, 779-811.	3.4	13
51	The nonlinear spin-up of a stratified ocean. Geophysical and Astrophysical Fluid Dynamics, 1984, 30, 169-197.	1.2	12
52	Direct Observations of Nearâ€Inertial Wave Î¶ â€Refraction in a Dipole Vortex. Geophysical Research Letters, 2020, 47, e2020GL090375.	4.0	12
53	Refraction and Straining of Near-Inertial Waves by Barotropic Eddies. Journal of Physical Oceanography, 2020, 50, 3439-3454.	1.7	11
54	Fixed-flux convection in a tilted slot. Journal of Fluid Mechanics, 1992, 237, 57-71.	3.4	10

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55	Wave-averaged balance: a simple example. Journal of Fluid Mechanics, 2021, 911, .	3.4	10
56	On Galerkin Approximations of the Surface Active Quasigeostrophic Equations. Journal of Physical Oceanography, 2016, 46, 125-139.	1.7	9
57	Beta-plane turbulence above monoscaleÂtopography. Journal of Fluid Mechanics, 2017, 827, 415-447.	3.4	9
58	An improved model of near-inertial wave dynamics. Journal of Fluid Mechanics, 2019, 876, 428-448.	3.4	8
59	Polar vortex crystals: Emergence and structure. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120486119.	7.1	8
60	Energy-enstrophy stability of Î²-plane Kolmogorov flow with drag. Physics of Fluids, 2008, 20, .	4.0	7
61	On the energy of elliptical vortices. Physics of Fluids, 2010, 22, .	4.0	7
62	Improved bounds on horizontal convection. Journal of Fluid Mechanics, 2020, 883, .	3.4	7
63	Dissipative descent: rocking and rolling down an incline. Journal of Fluid Mechanics, 2007, 590, 295-318.	3.4	6
64	Semicompressible Ocean Dynamics. Journal of Physical Oceanography, 2015, 45, 149-156.	1.7	5
65	The Nusselt numbers of horizontal convection. Journal of Fluid Mechanics, 2020, 894, .	3.4	5
66	Dispersion in an unconsolidated porous medium. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2468-2470.	1.6	4
67	Inertia-gravity waves and geostrophic turbulence. Journal of Fluid Mechanics, 2021, 920, .	3.4	4
68	Stokes drift and its discontents. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210032.	3.4	3
69	Exciting, unsettling changes in store for physical oceanography. Eos, 1999, 80, 394.	0.1	1
70	Interaction of near-inertial waves with an anticyclonic vortex. Journal of Physical Oceanography, 2021, , .	1.7	1
71	Bounds on dissipation in stress-driven flow in a rotating frame. Journal of Fluid Mechanics, 2005, 540, 373.	3.4	0